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**POSITION DEPENDENT RECOGNITION OF
GNN NUCLEOTIDE TRIPLETS BY ZINC FINGERS**

ABSTRACT OF THE DISCLOSURE

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The specificity of binding of a zinc finger to a triplet or quadruplet nucleotide target subsite depends upon the location of the zinc finger in a multifinger protein and, hence, upon the location of its target subsite within a larger target sequence. The present disclosure provides zinc finger amino acid sequences for recognition of triplet target subsites having the nucleotide G in the 5'-most position of the subsite, that have been optimized with respect to the location of the subsite within the target site. Accordingly, the disclosure provides finger position-specific amino acid sequences for the recognition of GNN target subsites. This allows the construction of multi-finger zinc finger proteins with improved affinity and specificity for their target sequences, as well as enhanced biological activity.

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